

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization  
International Bureau



10/506956



(43) International Publication Date  
18 September 2003 (18.09.2003)

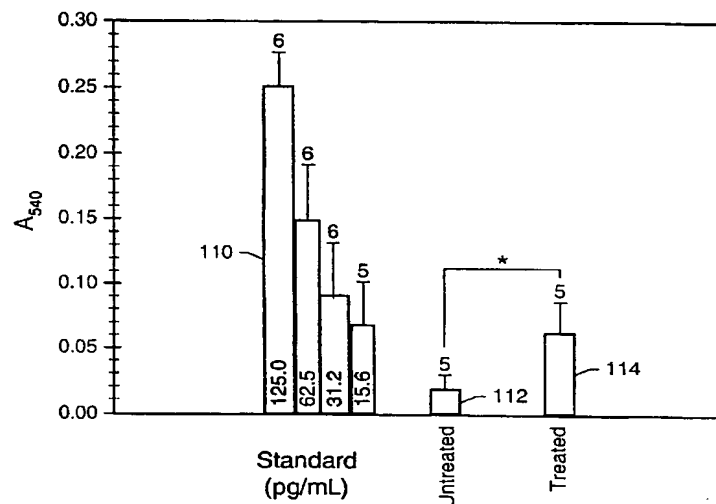
PCT

(10) International Publication Number  
WO 03/075790 A2

- (51) International Patent Classification<sup>7</sup>: A61F (74) Agent: MEYERTONS, HOOD, KIVLIN, KOWERT & GOETZEL, P.C.; Meyertons, Eric, B., P.O. Box 398, Austin, TX 78767-0398 (US).
- (21) International Application Number: PCT/US03/06942
- (22) International Filing Date: 6 March 2003 (06.03.2003) (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/362,776 8 March 2002 (08.03.2002) US
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- (84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
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- Published:  
— without international search report and to be republished upon receipt of that report

[Continued on next page]

(54) Title: GAS-PLASMA TREATMENT OF IMPLANTS



(57) Abstract: An implant for use in biological/biomedical applications may be prepared by subjecting a substrate to a gas-plasma treatment. The substrate may be a biocompatible material, including metals, ceramics, and polymers. More specifically, the substrate may be a bioresorbable polymer. The gas-plasma treatment may include subjecting the substrate to a plasma formed by a reactive gas. The gas-plasma treatment may be performed for a chosen duration at a radio frequency within a temperature range, a pressure range, and a supplied energy range. The substrate may be exposed to living cells, such that some of the living cells become coupled to the substrate. Gas-plasma treatment parameters may be chosen such that the living cells coupled to the treated substrate produce more of a cellular product than living cells coupled to an untreated substrate.

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